

Topographically Speaking



Crop dusting aircraft, Malden, Mo.

MAY-JUNE GEOLOGICAL SURVEY, NATIONAL MAPPING DIVISION Vol. 4
1981 1400 Independence Road, Rolla, Missouri 65401 No. 5

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Cover photo by Phil Lampert

CARTOGRAPHER DEVELOPMENT PROGRAM

by Merle E. Southern

Paul B. Schubring, Stephen D. Skelton, and Agnellus (Angus) Pedro are the most recent Mid-Continent Mapping Center employees selected for the Cartographer Development Program.

Paul Schubring was a participant in the Geological Survey cooperative education program at the University of Wisconsin-La Crosse. After graduating with a Bachelor of Science degree in Geography, Paul was appointed to a Cartographer position in the Rocky Mountain Mapping Center's Branch of Field Surveys. He transferred from RMMC to the Mid-Continent Mapping Center's Branch of Photogrammetry in December 1980 and was reassigned to the Cartographer Development Program in April 1981.

Stephen Skelton was also a participant in the Survey cooperative education program while attending East Central Oklahoma State University, Ada, Oklahoma. While in school, Stephen worked in the Center's Branches of Field Surveys and Cartography. In May of this year, he graduated with a Bachelor of Science degree in Cartography, and he reported for duty at MCMC on June 1, where he is presently assigned for training in the Branch of Photogrammetry.

Angus Pedro was also a participant in the Survey cooperative education program while attending East Central Oklahoma State University. Prior to attending East Central, Angus graduated from Haskell Indian Junior College, Lawrence, Kansas. While in school, Angus worked in the Center's Branches of Field Surveys, Photogrammetry, and Cartography. He graduated in May of this year, with a Bachelor of Science degree in Cartography and reported for duty June 8. Angus is presently assigned for training in the Branch of Photogrammetry.

BADLANDS NATIONAL PARK MAP

by Dick Mumma

If you have recently noticed large wooden boxes being carried slowly down the hallway by somber faced editors, and have suspicions of murky events in Cartography, they are unfounded. Those boxes contained the material for the Badlands National Park Map recently completed and sent to Reston.

This is the second one in the new series of folded 1:50,000-scale metric National Park maps compiled at MCMC. The first was Voyageurs National Park. These are derived maps, similar in form to the 1:100,000-scale 30 x 60 minute quadrangles. Their base copy is paneled from existing 7½' or 15' quadrangles, updated using recent photography by the Branch of Photogrammetry, and prepared for folding so the information about the map is on the outside.

The size and fold arrangement has to be determined individually for each map in this series by the size and shape of the park and by the size of the presses at our publication plant. The Badlands National Park is comprised of two units laying along a NE-SW diagonal, extending about 50 miles east and west and about 30 miles north and south. This made it necessary to map the park on two separate sheets. A projection was chosen so the sheets were very nearly equal in size. Responding to a request from park

officials, the map was designed to be printed front and back on the same sheet of paper, with the north and south projection lines coinciding. This gave the same north-south marginal space on each side. The projections were shifted east and west so that when viewing the back, or south unit, the front panel, with its information, can be folded back to appear in a readable position on the left side without obscuring any of the south unit map.

Because each national park is unique, this series of map is flexible enough to accomodate requests by park officials to emphasize features important to them and to the users of the park. One such feature in the Badlands National Park is the small "pull-out" roads at scenic overlooks. For emphasis, these were widened considerably from our usual symbol. Another request from the park officials concerned the amount of area to be contoured. On the Voyageurs map, only the area inside the park was contoured, and a "skeletal planimetric treatment" (roads, major drains, etc.) was used between the boundary and the projection line. This treatment was suggested to the park officials, but they preferred full map coverage to the projection line due to unique requirements in managing the park. This was done. They requested enhancing a wilderness area within the park. This was also done by applying to it a light buff tint. The park area itself is made more prominent by applying a brown tint to the area outside the park. Space was provided on the south unit map side panel for a text, and the park officials supplied a 1500-word narrative that will be of interest to visitors to the park.

Some problems were encountered during production of the map. Contouring was difficult and time consuming, since the contours were interpolated from the foot contours on the 7½ quadrangle. Ordinarily, this is done at the compilation scale of the metric map. Due to the density of the contours on some of the quadrangles (when reduced to 1:50,000 they appear almost solid brown) this was first done in ink at 1:24,000 scale, reduced and

then scribed. The brown tint outside the park area caused another problem by obscuring the intermittent ponds and reducing the visibility of the timber. This was taken care of by masking the brown tint from these areas. Another problem was the registration of the separates when used to make the press ready negatives, which was due to the length of the film. While we consider the material we use as stable, when one starts working with material approaching 60" in length, expansion and contraction becomes a critical factor. This necessitated storing the material in the controlled environment of the photolab before each step in the final production to minimize registration problems.

Despite the many problems encountered, we feel the published map will be one in which MCMC, the National Mapping Division, and the National Park Service can take pride. More importantly, it should prove to be extremely useful to park visitors.

MCMC MONITORS USGS EXHIBIT AT 15TH INTERNATIONAL REMOTE SENSING SYMPOSIUM

by Eddie Schwartz

During the week of May 11-15, 1981, I attended the 15th International Symposium on Remote Sensing of Environment held in Ann Arbor, Michigan, to serve as monitor for the USGS exhibit. The primary theme of the symposium was remote sensing satellites, particularly Landsat D and D' and future foreign satellites such as France's SPOT and Japan's proposed satellite remote sensing program.

The symposium was well attended by people from every corner of the world. The keynote speaker, former President Gerald Ford, set the mode for an enthusiastic exchange of ideas, particularly during the poster sessions located very near to the USGS exhibit.

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The USGS exhibit featured displays on Dr. Colvocoresses' Mapsat proposal, Landsat land cover mapping and cropland irrigation mapping, metropolitan land use mapping for Pittsburgh, Pa., from aerial photography, and a display on creating the USGS Digital Cartographic Data Base (DEM's, DLG's, GIRAS, State bases, and the 1:2,000,000 National Atlas).

Of the approximately 600 attendees, roughly 400 observed the USGS exhibit. The majority of direct inquiries came from foreign attendees (11 different countries) whose interests were primarily in land cover mapping. Domestic inquiries were primarily in the area of DEM's and GIRAS (software availability).

As usual, Exhibits and Visual Services did a fine job of providing appropriate brochures and information leaflets to accompany the exhibits. The most popular item was Circular 777 (A Guide to Obtaining Information for the USGS: 1981). Of the 200 copies provided, only 10 remained at the conclusion of the symposium.

GIO STAFF ATTENDS WORKSHOP

by Phil Lampert

George Loelkes, Chief, Geographic Investigations Office, Phil Lampert, Steve Miller, and Eddie Schwertz attended a two-day workshop on "Resource Management and the Use of Supporting Data--Federal/State Workshop." The workshop, held in Kansas City, Mo., May 20-21, was sponsored by the Ozarks Regional Commission (ORC). It was well attended with representatives from most of the Mid-Continent States.

Mr. Joe Gabbard, Program Coordination Officer, Ozarks Regional Commission, officially opened the workshop. He reported on the status of the ORC. Funds that ORC had been previously allocated, have been rescinded and funding for ORC

remains tenuous. Mr. Gabbard was not very optimistic about the future of ORC and the six other Title V regional commissions in the United States.

Speakers from the Census Bureau, USGS Water Resources Division, and the Soil Conservation Service, USDA, reported on their respective agencies' procedures and programs for data acquisition, storage, and applications. Many of these agencies provided handouts and samples of their products.

Mr. Fred Lavery, the National Mapping Division's advisor to the U.S. Fish and Wildlife Service at St. Petersburg, Fla., gave a status report on the National Wetlands Mapping Program. As usual, Fred did an excellent job in his presentation; especially in the technical aspects of interpretation, wetland classification, and incorporating the data into the 100K publication. Fred emphasized that these maps are available from the U.S. Fish and Wildlife Service, not the Geological Survey.

Discussions were held concerning the establishment of a Regional Advisory Committee for Geographic Applications. The representatives were enthusiastic concerning this proposal, and the Ozarks' States indicated their former State Advisory panel could be the nucleus for a Regional Advisory Committee for Geographic Applications. It was suggested that GIO's "Grapevine" newsletter, published at MCMC, be continued and serve as the communication instrument for information on the latest research and publications in natural resources applications in the States and at MCMC.

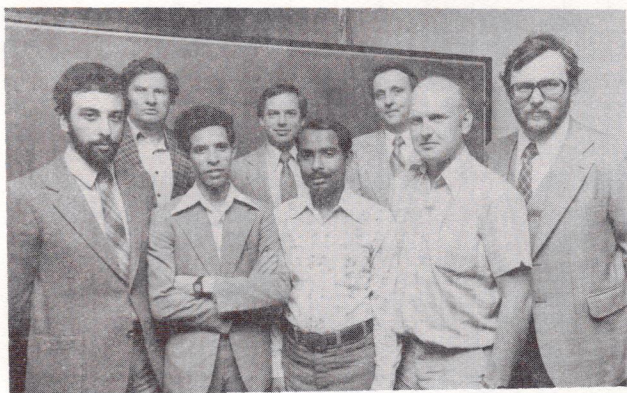
GIO personnel gave short reports on digital applications of natural resource data, GIO's workshops and training, publications, and research. The workshop was interesting, educational and attendees became cognizant of the programs in resource management in other States and GIO's function and responsibilities in the Mid-Continent States.

NAVOCEANO PHOTOGRAMMETRY COURSE FOR FOREIGN NAVAL OFFICERS

by Gary McKeown

During the week of March 30 - April 3, MCMC was again host to a group of foreign naval officers taking part in the NAVOCEANO photogrammetry course. The one week of photogrammetry training offered here is but a part of the entire hydrographic mapping curriculum sponsored by the U.S. Naval Oceanographic Office, Bay St. Louis, Mississippi. The MCMC portion of the course consists of instruction in stereoplotter operations, determining the orientation of tilted aerial photographs, rectification of tilted photographs, and map projections.

This year's class of four was relatively small in comparison to last year's class of nine. The four students, one each from Bangladesh, Norway, Portugal, and Saudi Arabia, were genuinely interested in the course and came to Rolla with a good theoretical background in photogrammetry.



1981 NAVOCEANO PHOTOGRAMMETRY COURSE

Left to Right. Lt. (j.g.) Antonio Ribeiro, Portugal; Jim Cherry, Instructor, U.S. Naval Oceanographic Office; Lt. (j.g.) Salen Al-Mosallam, Saudi Arabia; Glenn L. Osick, Lt. Mohammed Nurul Huda, Bangladesh; L. H. Borgerding, LCDR Fredrik Schlanbush, Norway; Gary McKeown

The course began on Monday morning with an opening greeting and slide presentation on the U.S. Geological Survey and National Mapping Division by L. H. Borgerding. The students then met with Glenn Osick who welcomed them to the Branch of Photogrammetry. After a brief introductory session we viewed the movie, "Maps for Man."

Official instruction began with the subject, "Determining The Orientation of an Aerial Photograph." After lunch we went over the rectification of tilted photographs and spent some time with Jack Gentry who demonstrated our Wild E-4 rectifier. The remainder of this first day was used to introduce the students to the Kelsh plotter.

We spent most of Tuesday through Thursday learning to parallax, level, and scale a stereomodel. We also compiled a model from the Salem NW, Missouri quad and a model covering Cat Island, Mississippi. The Cat Island manuscript will be used as part of the hydrographic chart the students compile in the other portion of their course.



VDES Briefing on MCMC Tour

Henrik Schlanbush joined his father for the tour.

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On Thursday afternoon we saw the movie, "Map Projections in the Computer Age," and covered the construction and properties of map projections. Friday was spent touring MCMC. Friday afternoon ended with closing ceremonies which included the awarding of certificates of completion by Larry Borgerding and Glenn Osick.

In short, the week was demanding and rewarding to me both professionally and personally. I am looking forward to participating in the course next year.

ON THE ROAD AGAIN

by Allen Giebink

With Willie Nelson singing their theme song, the semi-annual migration of Mid-Continent's field force has begun. The final destinations are as far apart as they have been in recent years. Following is a list of projects that have been planned for this field season, and the personnel assigned to each project.

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O'Brien, J. W.

Bayshore, Michigan

Barrett, R. R.
Blaser, R. R.
Larson, T. G.

Noordhoek, J. L.
Paquette, D. F.

Escanaba, Michigan

Conover, W. III
McFarlin, W. R.
Payne, R. L.

Perry, L. A.
Ragan, N. E.
Schoenmann, J. H.

Cadillac, Michigan

Chaney, R.
French, J. D.
Hartley, C. W.

Lien, C. D.
Scroggins, G. D.

Clare, Michigan

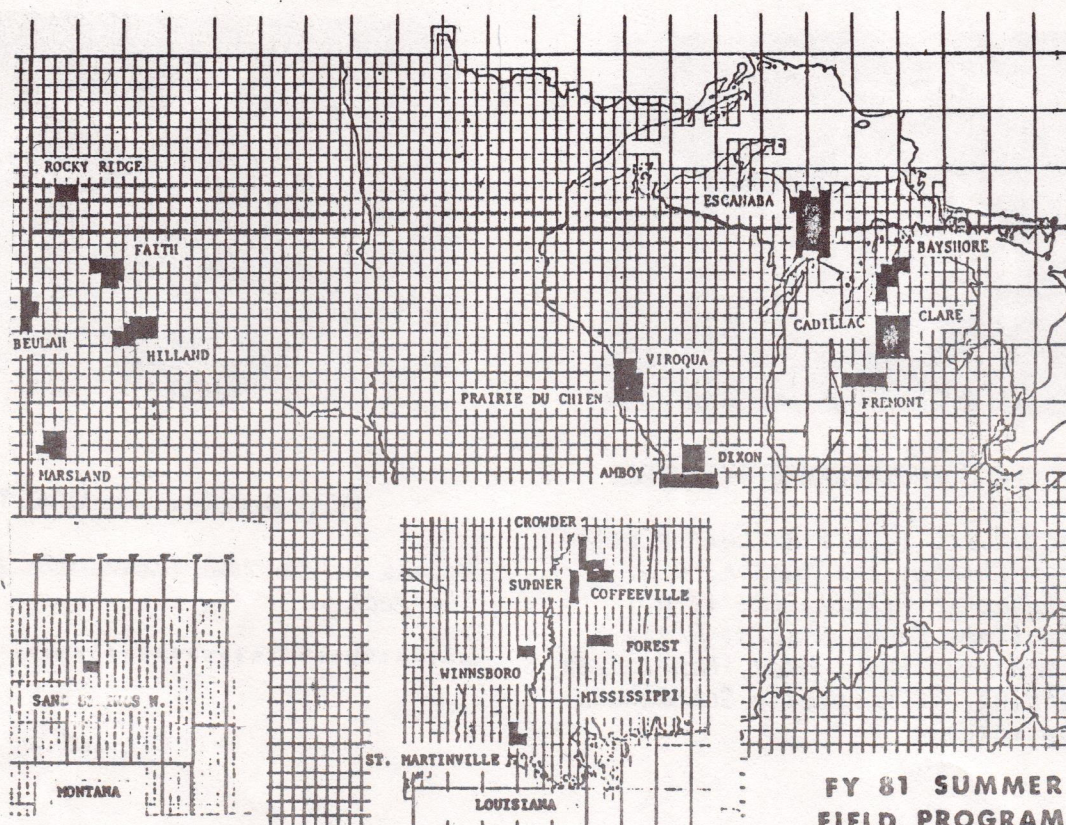
Arneson, R.
Burgeson, D. N.
Chaney, R.
Logan, D. L.

Lucas, D. R.
Rinehart, R. E.
Tackett, L. M.
Taipale, V. P.

Fremont, Michigan

Kennedy, M. L.
Kirk, J. L.

Rise, A. E.



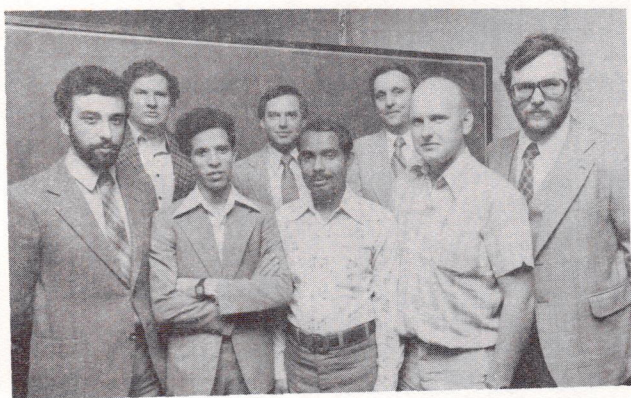
FY 81 SUMMER
FIELD PROGRAM

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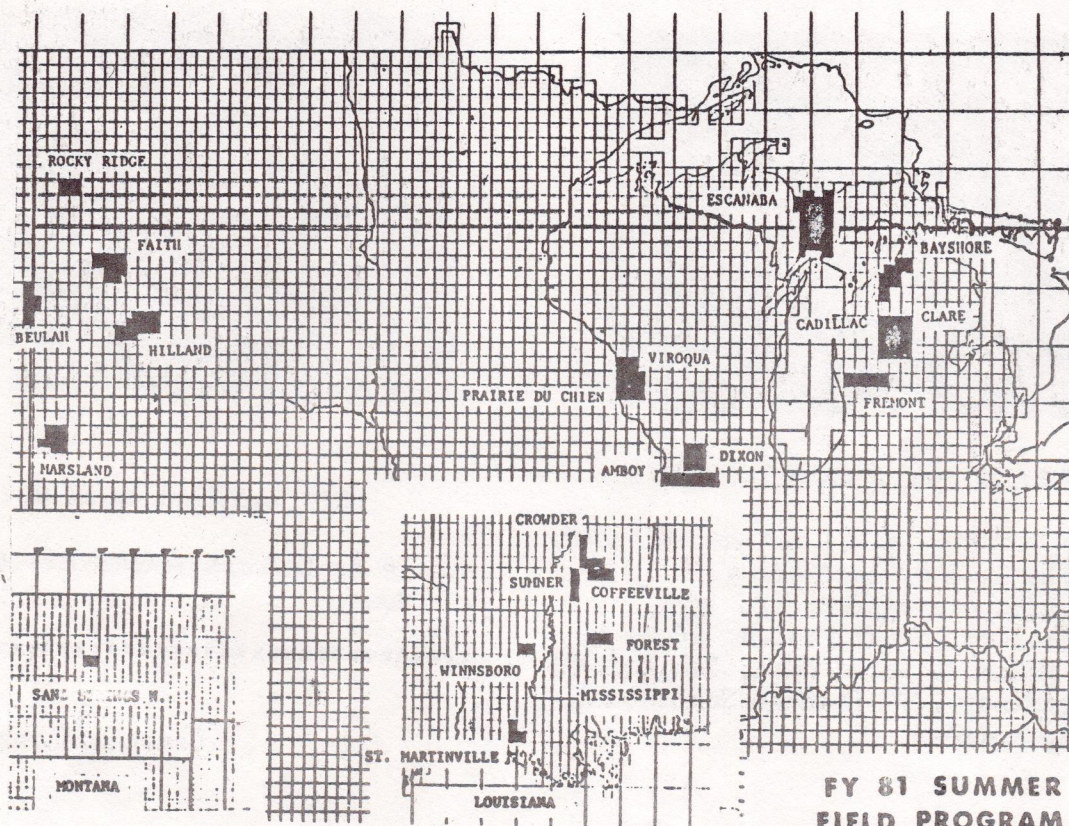
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FY 81 SUMMER
FIELD PROGRAM

Winnsboro, Louisiana

Sandul, G.

St. Martinville, Louisiana

Sandul, G.

Forest, Mississippi

Sandul, G.

Sumner, Mississippi

Sidie, R. P.

Sand Springs North, Montana

Harris, W. M.

McHugh, J. J. P.

McCurley, W. K

Marsland, Nebraska

Cremer, W. E.

Spanel, F. S.

Krueger, F. W.

Faith, South Dakota

Brandner, J. E.

Parker, R. C.

Knouse, W. E.

Hilland, South Dakota

King, D. E.

Schwartz, J. W.

Maus, D. E.

Beulah, Wyoming

Barney, L. A.

McHugh, J. J. P.

Felkerson, J. T.

Prairie Du Chien, Wisconsin

Wood, W. G.

Viroqua, Wisconsin

Wood, W. G.

6TH ANNUAL ACSM WORKSHOP

by Marshall Creighton

On May 6, 1981, the Greater Rolla Area Section held its annual ACSM Workshop at the Mid-Continent Mapping Center, in Rolla, Missouri. The workshop is held every Spring to give students from the area high and vocational-technical schools an overview of the role that State and Federal agencies play in advancing the various disciplines involved in surveying, mapping, and water resource management. The purpose of these workshops is to inform the public of these activities and generate student interest in career opportunities in one of the disciplines exhibited.

The workshop itself consisted of six main activities; stereocompilation, negative engraving and map editing, land surveying techniques, field surveying instrument techniques, stream flow gaging and sediment measurement, and finally a discussion of government job opportunities and hiring practices. The workshop consisted of a morning and afternoon session, with approximately 110 students participating. The students were given "hands-on" instruction in all areas concerned. The more advanced drafting students were able to run a 4th order control line using alidade and plane table.

The Rolla Area Section was able to obtain the services of the Missouri Department of Natural Resources-Missouri Land Survey, the Water Resources Division and the National Mapping Division who all provided personnel and equipment for the workshop. All totalled, 20 professional and technical employees provided either instruction or acted as guides during the two sessions.

Information received from the cooperating teachers after the workshop indicated that the 1981 workshop was a success. The Rolla Area Section plans to present this workshop every Spring and hopes its success continues.

FLOWER FUND

In March 1981, voluntary contributions to the MCMC Flower Fund were received amounting to \$451.55. The balance now on hand is \$580. Your continued interest and support in this endeavor are appreciated; the end result is a comfort in a time of need.



ASP NEWS

by Bill Good

An ASP-ACSM combined meeting was held May 12, 1981, in the main conference room of the USGS building. Mr. Glenn Osick, ASP President, introduced the speaker, Mr. Gary North, Acting Asst. Division Chief for Information and Data Services, USGS, NMD. Mr. North gave an interesting and informative talk on Information and Data Services (IDS), a new organizational unit of the USGS in the Reston office. With the use of slides and viewgraphs, Mr. North explained that IDS is made up of the National Cartographic Information Center, the former Technical Information Office, the Distribution Centers for all USGS publications (not just maps), as well as the Public Inquiries Offices across the country. Since the new organization includes several functions from the now defunct Publications Division, IDS has several responsibilities that involve activities in other divisions of the USGS. Refreshments were served after the meeting.

The American Society of Photogrammetry's next scheduled meeting will be held on the campus of the University of Missouri-Rolla, Wednesday, July 8, 1981, in room 107 of the Mining Building. Guest speakers will be Dr. Dave Barr and Dr. Dale Elifrits speaking on the subject, "Study of Coal Mine Subsidence Using Various Remotely Sensed Data" the program will also include a demonstration of the COMTRON. Everyone is welcome to attend and bring a guest.

ACSM MEETS AT THE MISSOURI GEOLOGICAL SURVEY

by Phil Lampert

The Greater Rolla Area Section, American Congress on Surveying and Mapping, met Tuesday evening, June 2nd, in the conference room at the Missouri Geological and Land Survey Building in Rolla, Missouri.

Marshall Creighton, GRAS Secretary, reported on the 6th Annual Workshop held for Rolla High School and vocational drafting students May 6th at MCMC. After the treasurer's report, the meeting was turned over to Marty Moreland, Chairman.

Marty introduced the guest speaker, Jerry Vineyard, Assistant Missouri State Geologist. The subject of Jerry's presentation was "Underground Mapping; Survey of Caves in Missouri--the Cave State."

Jerry stated that there are 4,142 reported caves in Missouri and each year approximately 160 more caves are reported or discovered. Approximately 60 caves are mapping yearly, therefore the mapping progressively falls further behind.

There was an interesting map of Mark Twain cave in Hannibal; the cave made famous in the novel "Tom Sawyer." Jerry called it a "maze cave." Looking at the map, it is easy to understand why poor Becky and Tom got lost. The most skillful spelunkers, with the finest of equipment, would have problems navigating in that maze of tunnels, crawlspaces and side caverns.

In closing, Jerry showed some slides of newly discovered rooms and lakes in Bridal Cave, a commercial cave near Camdenton. After approximately an hour of questions by an enthusiastic audience, Jerry's expertise in answering them, the meeting was adjourned and refreshments served.

FIELD PERSONNEL GIVE DEMONSTRATION IN PRESIDENT REAGAN'S HOME TOWN

by Robert Barrett

On Friday, May 22, field personnel at Dixon, Ill. met with 17 9th through 12th grade students at Dixon High School. These students are completing a geology class and were interested in observing various surveying equipment. Also attending were about 15 members of the Advanced Math Class at the school. Bud Adams, Vic Taipale, and Bob Barrett demonstrated the Wild N-3 level, the planetable equipment, and the Elevation Meter. Aerial photos, 7½-minute maps and other material was discussed. Numerous questions regarding the equipment demonstrated and other general questions regarding the work of the Survey were answered by the field personnel.

MOUNT ST. HELENS POST-ERUPTION MAP AVAILABLE

A new post-eruption map of Mount St. Helens and vicinity that includes color photographs of the major eruption and aftereffects has been published by the U.S. Geological Survey, through a cooperative effort with the USDA-Forest Service, and the Washington State Department of Natural Resources.

The 36 x 40-inch topo map is being printed in a first edition of nearly a half million copies, the single largest printing ever made by the USGS. The map shows how the area appears in the wake of the violent eruption of May 18, 1980, and clearly depicts the newly-formed crater and dome, the eruption-impact area, landslide-debris flow, and the mudflows on the Muddy, Toutle and Cowlitz rivers.

Presented at a scale of 1:100,000, the map has been updated from aerial photography taken June 19, 1980. The map denotes land managed by federal and state agencies and includes numerical designations for roads within the Gifford

Pinchot National Forest, viewpoints, campgrounds, picnic areas, visitor centers and points of interest.

On the reverse side of the map, the Forest Service has presented text and color photographs providing a narrative of recent Mount St. Helens volcanic activities. Included are before and after panoramic views of the devastated area, history and legends of the mountain and a glossary of volcanic terms.

Copies of this map are available through NCIC at \$1 each.

REDUCE MOWER MENACE

When spring greenery needs trimming, do it right by doing it safely.

For gasoline mowers: Fill the tank before starting and don't fill it after the engine is hot. Never dangle gas cans from mower handles where a hot exhaust pipe could ignite escaping fumes. Those things could cause an explosion or fire. Don't clean the blades without first *disconnecting the spark plug wire*. Gasoline mowers can start even when they're turned off if the blade is rotated.

For electric mowers: Check the cords and plugs. If you cut the cord with the mower frequently, use a ground fault interrupter to insure your safety.

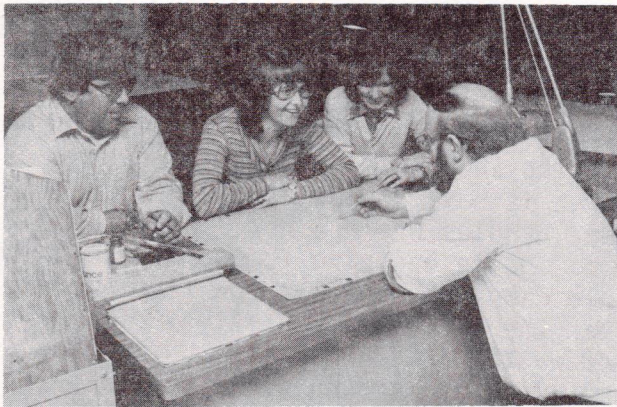
In general: always check the lawn before you begin for rocks, sticks, and toys that can be thrown by the mower. Clear the yard of pets and children. Wear heavy leather shoes, just in case. Keep hands and feet away from the housing and *never* unclog the mower when it's running. Keep children away from the machine unless you're sure they're trained in how to use it and the dangers.

UPWARD MOBILITY

by Olga Detjen

Two more people are benefiting from the Federal Government's Upward Mobility Program. Linda McKeage and Carla Brookshire entered Photogrammetry as Cartographic Aid trainees on March 9, 1981. This places them on a career ladder making it possible for them to advance by noncompetitive steps to a full production level of GS-9. Formerly, each was in a position of limited promotional potential.

Before entering the Upward Mobility Program, Carla was Purchasing Agent for the National Mapping Division in the Branch of Plans and Production. Linda was a Cartographic Aid in NCIC-M.



Also training in stereocompilation is Dennis Moersch. He entered the Federal service via the Veterans Readjustment Act on December 15, 1980, and is scheduled to complete a 2-year training program encompassing the activities of several different Branch operations.

SHORT CUTS

An estimated 100,000 accidental poisonings of young children will occur in the United States this year, most of them due to adult carelessness with toxic household products. Take time to lock up poisons or put them out of reach. Have the phone number of the nearest poison control center and rescue squad handy, just in case.

* * * * *

Of the 1,000 Americans blinded in accidents each year, nearly 40 per cent are blinded at home. Remember to use eye protection when using the workshop, doing yardwork or working with household chemicals.

THE USGS SOCIAL COMMITTEE INVITES YOU TO A FAMILY SKATE NIGHT

MONDAY, JULY 13TH

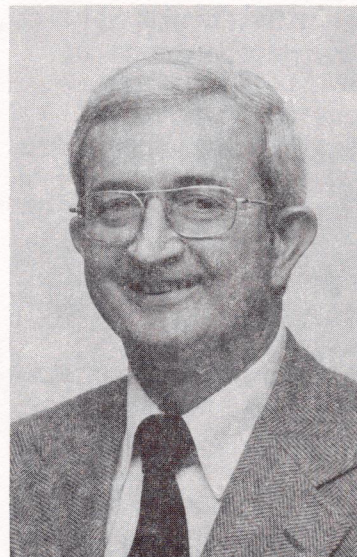
7 TO 9 P.M.

AT THE
MAGIC LANTERN SKATING RINK

ADMISSION: \$2 PER PERSON
SKATES FURNISHED

TICKETS ARE AVAILABLE FROM ANY
SOCIAL COMMITTEE MEMBER.

MCMC RETIREES

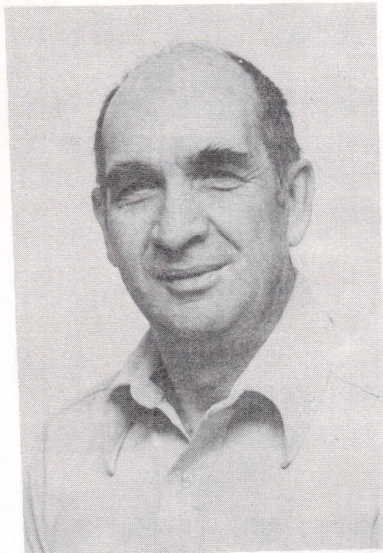


Wilbur C. Batson,
Mid-Continent
Mapping Center,
retired on
April 20, 1981,
after completing
more than 36
years of Federal
service.

Mr. Batson began
his Federal
career in 1944
with the U.S.
Army. Following
his discharge in
1946, he began
working for the
U.S. Geological

Survey, initially as a temporary field
assistant and later as a career employee.
Wilbur continued to serve in the Branch

of Field Surveys until 1953, at which time he was reassigned to the Branch of Cartography. He advanced to the position of Cartographer in the Review Editing Group, Office of the Branch Chief, the position from which he retired.



Homer G. Crowell, Mid-Continent Mapping Center, retired on March 20, 1981, with more than 31 years of Federal service.

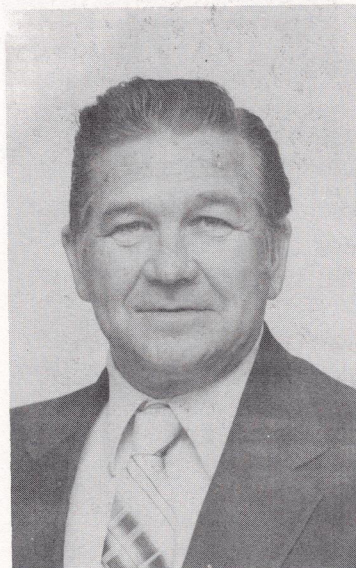
Mr. Crowell began his Federal career with the U.S. Navy in 1943. After his discharge in 1946, he entered the Missouri School of Mines and Metallurgy, receiving a B.S. degree in Civil Engineering. Homer started his career with the U.S. Geological Survey on June 2, 1950, as a Surveying and Cartographic Engineer in the Branch of Field Surveys. He was reassigned in 1956 to the Branch of Photogrammetry, and again in 1978 to the Branch of Plans and Production. It is this Branch from which Homer retired, as the Chief of the User Services Team in the National Cartographic Information Center.



Kenneth L. Gabel, Mid-Continent Mapping Center, retired on April 12, 1981, after completing more than 31 years of Federal service.

Mr. Gabel began his Federal career in 1944 with the U.S. Air Force. After discharge in 1948, he worked in the private sector

and attended the University of Missouri. Ken resumed his Federal career in 1954 as a Cartographic Photogrammetric Aid with the Aeronautical Chart and Information Center in St. Louis, Missouri. He transferred to the U.S. Geological Survey in 1956, where he was assigned to the Branch of Photogrammetry. He advanced to the position of Cartographic Technician, Branch of Photogrammetry, the position from which he retired.



Jules C. "Teeny" Lemoine, Mid-Continent Mapping Center, retired on May 15, 1981, after completing nearly 38 years of Federal service.

Mr. Lemoine began his Federal career in 1943 as a temporary field assistant with the U.S. Geological Survey. He joined the U.S. Navy in 1944 and served for over two years. Following his discharge in 1946, Teeny returned to the USGS, initially as a temporary field assistant and soon thereafter as an Engineering Aid.

He remained in the Branch of Field Surveys throughout his entire career. In 1979, Teeny was reassigned from the Field District to the Field Surveys Inspection Section. He advanced to the position of Cartographic Technician, the position from which he retired.

A couple of wives are discussing the awkward state they found themselves and summed it up: "We're too young for medicare and too old for men to care."

Stewart D. "Buzz"
Sawyer,
Mid-Continent
Mapping Center,
retired on
April 19, 1981,
after completing
more than 29
years of Federal
service.



Mr. Sawyer graduated from North-
west Missouri
State Teachers
College in 1951,
with a B.S.
degree in
Education. His
Federal career began in 1952, when he
joined the U.S. Geological Survey.
Buzz's entire career was spent in the
Branch of Photogrammetry, where he
worked on a wide variety of stereo-
plotters for photogrammetric map compi-
lation, and also spent several years
working in aerotriangulation. He
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Technician, the position from which he
retired.

AWARDS

SUGGESTION

Harlan E. Honse

SPECIAL ACHIEVEMENT

William A. Young
Jules C. Lemoine

20-YEAR

Floyd K. Hudgens
Edward A. Miloro
Donald L. Moreland
Lorran A. Patton
Robert A. Peckman
Carl E. Riley
Carol J. Willeford

10-YEAR

William M. Harris

PERSONNEL ACTIONS (THROUGH MAY 29)

ACCESSIONS

Frank E. Andrews--Excepted Appointment,
"v"--Summer Aid, Br. of Carto., Off.
of the Br. Chief.
William S. Helterbrand--Excepted Appint-
ment, Conditional--2-yr. Co-op Student
Trainee (Carto Tech)
Karen J. Miller--Excepted Appointment,
"v"--Summer Aid, Br. of Photogr.,
Off. of Br. Chief
Tami S. Richardson--Excepted Appointment,
700-hr., temporary--Carto Aid, Br. of
Carto., Off. of Br. Chief

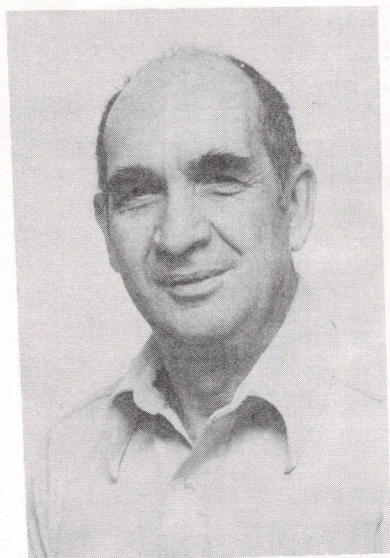
LOSSES

Jules C. Lemoine, opt. retirement
Stewart D. Sawyer, "
Kenneth L. Gabel, "
Wilbur C. Batson, disability retirement
Rhonda S. Medcalf, resignation

PROMOTIONS

Candice D. Leake, Carto Aid, GS-2, Br.
of P&P, NCIC-M, Data Acquisition Team,
to same, GS-3, same
Gregory M. Sawyer, Photographic Aid,
GS-2, Br. of Carto, Photoimagery Sect.,
to same, GS-3, same
Timothy K. Thompson, Photographer (Lab),
GS-5, Br. of Carto, Photoimagery Sect.,
to same, GS-6, same
Robert A. Newkirk, Carto Aid, GS-2, Br.
of Carto, Carto Sect., Compilation
Unit, to same, GS-3, same
Richard L. Walters, Carto Aid, GS-2, Br.
of Carto., Carto. Sect., Compilation
Unit, to same, GS-3, same
Sharon A. Sewell, Fiscal Clerk (T),
GS-5, Br. of P&P, Program Control Sect.,
to Program Asst., GS-6, same
Linda J. Copeland, Carto Aid, GS-4, Br.
of Photog., Photog. Oper. Sect., to
Carto Tech, GS-5, same
Paul B. Schubring, Cartographer, GS-5,
Br. of Photog., Photog. Oper. Sect.,
to same, GS-7, Off. of Center Ch.,
Carto Trainee Group
Roxann Crafton, Carto Aid, GS-4, Br. of
Carto., Carto Sect., Compilation Unit,
to Carto Tech, GS-5, same
James L. Flaherty, Cartographer, GS-11,
Br. of P&P, Off. of Br. Ch., to Supv.
Cartographer, GS-11, same

of Field Surveys until 1953, at which time he was reassigned to the Branch of Cartography. He advanced to the position of Cartographer in the Review Editing Group, Office of the Branch Chief, the position from which he retired.



Homer G. Crowell, Mid-Continent Mapping Center, retired on March 20, 1981, with more than 31 years of Federal service.

Mr. Crowell began his Federal career with the U.S. Navy in 1943. After his discharge in 1946, he entered the Missouri School of Mines and Metallurgy, receiving a B.S. degree in Civil Engineering. Homer started his career with the U.S. Geological Survey on June 2, 1950, as a Surveying and Cartographic Engineer in the Branch of Field Surveys. He was reassigned in 1956 to the Branch of Photogrammetry, and again in 1978 to the Branch of Plans and Production. It is this Branch from which Homer retired, as the Chief of the User Services Team in the National Cartographic Information Center.



Kenneth L. Gabel, Mid-Continent Mapping Center, retired on April 12, 1981, after completing more than 31 years of Federal service.

Mr. Gabel began his Federal career in 1944 with the U.S. Air Force. After discharge in 1948, he worked in the private sector

and attended the University of Missouri. Ken resumed his Federal career in 1954 as a Cartographic Photogrammetric Aid with the Aeronautical Chart and Information Center in St. Louis, Missouri. He transferred to the U.S. Geological Survey in 1956, where he was assigned to the Branch of Photogrammetry. He advanced to the position of Cartographic Technician, Branch of Photogrammetry, the position from which he retired.



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He remained in the Branch of Field Surveys throughout his entire career. In 1979, Teeny was reassigned from the Field District to the Field Surveys Inspection Section. He advanced to the position of Cartographic Technician, the position from which he retired.

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SUGGESTION

Harlan E. Honse

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Jules C. Lemoine

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Edward A. Miloro
Donald L. Moreland
Lorran A. Patton
Robert A. Peckman
Carl E. Riley
Carol J. Willeford

10-YEAR

William M. Harris

PERSONNEL ACTIONS (THROUGH MAY 29)

ACCESSIONS

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Trainee (Carto Tech)
Karen J. Miller--Excepted Appointment,
"v"--Summer Aid, Br. of Photogr.,
Off. of Br. Chief
Tami S. Richardson--Excepted Appointment,
700-hr., temporary--Carto Aid, Br. of
Carto., Off. of Br. Chief

LOSSES

Jules C. Lemoine, opt. retirement
Stewart D. Sawyer, " "
Kenneth L. Gabel, " "
Wilbur C. Batson, disability retirement
Rhonda S. Medcalf, resignation

PROMOTIONS

Candice D. Leake, Carto Aid, GS-2, Br.
of P&P, NCIC-M, Data Acquisition Team,
to same, GS-3, same
Gregory M. Sawyer, Photographic Aid,
GS-2, Br. of Carto, Photoimagery Sect.,
to same, GS-3, same
Timothy K. Thompson, Photographer (Lab),
GS-5, Br. of Carto, Photoimagery Sect.,
to same, GS-6, same
Robert A. Newkirk, Carto Aid, GS-2, Br.
of Carto, Carto Sect., Compilation
Unit, to same, GS-3, same
Richard L. Walters, Carto Aid, GS-2, Br.
of Carto., Carto. Sect., Compilation
Unit, to same, GS-3, same
Sharon A. Sewell, Fiscal Clerk (T),
GS-5, Br. of P&P, Program Control Sect.,
to Program Asst., GS-6, same
Linda J. Copeland, Carto Aid, GS-4, Br.
of Photog., Photog. Oper. Sect., to
Carto Tech, GS-5, same
Paul B. Schubring, Cartographer, GS-5,
Br. of Photog., Photog. Oper. Sect.,
to same, GS-7, Off. of Center Ch.,
Carto Trainee Group
Roxann Crafton, Carto Aid, GS-4, Br. of
Carto., Carto Sect., Compilation Unit,
to Carto Tech, GS-5, same
James L. Flaherty, Cartographer, GS-11,
Br. of P&P, Off. of Br. Ch., to Supv.
Cartographer, GS-11, same

Donna L. Logan, Cartographer, GS-7, Off. of Center Ch., Carto Trainee Group, to same, GS-9, same
 Pamela R. Malam, Carto Tech, GS-5, Br. of Carto., Carto Sect, Compilation Unit, to same, GS-6, same
 Charles T. Walters, Jr., Carto Tech, GS-9, FSIS, to same, GS-11, same
 Ronald T. Warren, Carto Tech, GS-5, Br. of Carto., Off. of Br. Ch., Digital Line Graphics Group, to same GS-6, same
 Sherry L. Von Klemen, Carto Aid, GS-4, Br. of Carto., Carto Sect, Compilation Unit, to Carto Tech, GS-5, same
 Leticia A. Sanchez, Clerk-Typist, GS-3, Off. of Center Ch., to same, GS-4, same
 Francis E. Lortz, Supv. Cartographer, GS-14, Br. of Photog. Off. of Br. Ch., permanent promotion

REASSIGNMENT

Marvin R. Bookout, Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect., to same GS-12, Off. of Center Ch., Instrument Maintenance Unit
 Raymond B. Douglas, Carto Tech, GS-9, Br. of Photog., Photog. Oper. Sect., to same, Photoproducts Unit.
 Gerald L. Eckert, Same as above
 Garrison K. Grimm, Same as above
 Donald L. Dunn, Carto Tech. GS-11, Br. of Photog., Photog. Oper. Sect., to same Analysis & Manuscript Preparation Unit
 *Robert A. Peckman, Cartographer, GS-11, Br. of Photog., Photog. Oper. Sect., to same, Br. of Photog., Photog. Oper. Sect., Analysis & Manuscript Preparation Unit
 *William R. Cruts, Lead Carto Tech, GS-10, Br. of Photog., Tech. Planning Sect., Base Sheet Preparation Group, to Carto Tech, GS-10, Br. of Photog., Photog. Oper. Sect., Analysis & Manuscript Preparation Unit
 George F. Darner, Carto Tech, GS-9, Br. of Photog., Tech. Planning Sect., Base Sheet Preparation Group to same, Photog. Oper. Sect., Analysis & Manuscript Preparation Unit
 *Myron T. Dake, Carto Tech, GS-5, Br. of Photog., Tech. Planning Sect., Base Sheet Preparation Group, to same, Photog. Oper. Sect., Analysis & Manuscript Preparation Unit

*Clifford J. Forbes, Lead Photographer (S&T), GS-9, Br. of Photog., Tech. Planning Sect., Photog. Photo Lab, to Photographer (S&T), GS-9, Br. of Photog., Photog. Oper. Sect., Photoproducts Unit
 *Samuel D. Turner, Photographer (S&T), GS-8, Br. of Photog., Tech. Planning Sect., Photog. Photo Lab, to same, Photog. Oper. Sect., Photoproducts Unit
 *Frederick D. Howard, Photographer (S&T), GS-7, Br. of Photog., Tech. Planning Sect., Photog. Photo Lab, to same, Photog. Oper. Sect., Photoproducts Unit
 Susan J. Payne, Comp. Asst., GS-5, Off. of Center Chief, to same, Technology Office
 Earl J. Coleman, Comp. Programmer, GS-9, Off. of Center Chief, to same, Technology Office
 John K. Powell, Cartographer, GS-13, Off. of Center Chief, Technology Office, to Supv. Cartographer, GS-13
 Robert L. Bullinger, Carto Tech, GS-11 (3573), Br. of Photog., Photog. Oper. Sect., to same (3875), same
 John W. Cole, Carto Tech, GS-9 (4247), Br. of Photog., Photog. Oper. Sect., same (1944), Photocontrol Requirements Unit
 Edward F. Haas, Carto Tech, GS-11 (4168), Br. of Photog., Tech. Planning Sect., Photog. Contracts & Review Unit, same (3875), Photog. Oper. Sect.
 Edward Hall, Jr., Carto Tech, GS-9 (3876), Br. of Photog., Photog. Oper. Sect., same (4239), same
 Dan H. King, Carto Tech, GS-11 (3875), Br. of Photog., Photog. Oper. Sect., same (4245), same
 Lee C. Malone, Carto Tech, GS-9, (3876), Br. of Photog., Photog. Oper. Sect., same (4237), same
 Jack C. May, Carto Tech, GS-9 (3876), Br. of Photog., Photog. Oper. Sect., same (1944), Photocontrol Requirements Unit
 Edward A. Miloro, Carto Tech, GS-9 (3876), Br. of Photog., Photog. Oper. Sect., same (4239), same
 Frank D. Ragan, Carto Tech, GS-11 (3875), Br. of Photog., Photog. Oper. Sect., same (3573), same
 Robert P. Rydeen, Carto Tech, GS-9 (3876), Br. of Photog., Photog. Oper.

Sect., to same (4167), Photog. Contracts & Review Unit
 Gary G. Sanders, Carto Tech, GS-9 (4237), Br. of Photog., Photog. Oper. Sect., to same (4239), same
 Juanita P. Wisdom, Carto Tech, GS-9, (3876), Br. of Photog., Photog. Oper. Sect., to same (4239), same
 William A. Young, Carto Tech, GS-11 (3573), Br. of Photog., Photog. Oper. Sect., to same (3875) same
 Martin L. Moreland, Jr., Carto Tech, GS-11, Br. of Carto., Edit "B", to Supv. Carto Tech, GS-11, Br. of P&P, NCIC-M, User Services Team
 Jack S. Cornélius, Supv. Cartographer, GS-13, Br. of FS, Geodetic Sect., to same, Field District
 Dennis R. Moersch, Carto Aid, GS-3, Br. of Photog., Tech. Planning Sect., to same, Photog. Oper. Sect.
 Robert L. Johnson, Carto Tech, GS-11, Br. of FS, Field District, to same, FSIS
 **Lee C. Malone, Carto Tech, GS-9, Br. of Photog., Photog. Oper. Sect., Stereo-compilation Unit, to Br. of Photog., Tech. Planning Sect., Photog. Contract & Review Unit (voids previous detail to same position)

*Personnel action resulting from reorganization.

DETAIL (NTE 120 DAYS)

**Lee C. Malone, Carto Tech, GS-9, Br. of Photog., Tech. Planning Sect., Photog. Contracts & Review Unit, to Br. of Photog., Photog. Oper. Sect., Aerotriangulation Unit
 John S. Kelmelis, Cartographer, GS-11, to Office of Program Management, Plans & Operations Section, Reston, Va. (no specific dates as yet)
 John B. Conroy, Cartographer, GS-11, Br. of Carto., Carto. Sect., Editing Unit, to same, Office of Center Chief

DETAIL (NTE 60 DAYS)

Robert A. Peckman, Cartographer, GS-11, Br. of Photog., Photog. Oper. Sect., Analysis & Manuscript Preparation Unit, to same, Br. of FS, Geodetic Sect.
 Allan R. Kohrmann, Cartographer, GS-11, Br. of FS, FSIS, to Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect.

Allen V. Geibink, Cartographer, GS-11, Br. of FS, Geodetic Sect., to Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect.
 Marshall J. Creighton, Cartographer, GS-11, Br. of Carto., Editing Unit, to Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect.
 Kenneth J. Boyko, to Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect., Analysis & Manuscript Preparation Unit
 Jeffrey L. Goldberg, to Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect., Photoproducts Unit

DETAIL (28 DAYS)

Eddy Lynn Usery, Cartographer, GS-11, to Office of Cartographic Research, Reston, Va.

TERMINATION OF DETAIL (NTE 120 DAYS)

Lee C. Malone, Carto Tech, GS-9, Br. of Photog., Tech. Planning Sect., Photog. Contracts & Review Unit, to same, Photog. Oper. Sect.
 Jack C. May, Carto Tech, GS-9, Br. of Photog., Tech. Planning Sect., Photocopy Requirements Unit, to same, Photog. Oper. Sect.
 Edward A. Miloro, Carto Tech, GS-9, to same, same
 Robert P. Rydeen, Carto Tech, GS-11, Br. of Photog., Photog. Oper. Sect. to same GS-9, same
 Lawrence L. Jontz, Cartographer, GS-11, Office of Center Chief, to same, Br. of Carto., Carto. Sect., Editing Unit

TERMINATION OF DETAIL (NTE 60 DAYS)

Kenneth J. Boyko, Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect., to Cartographer, GS-11, same
 Jeffrey L. Goldberg, Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect., to Cartographer, GS-11, Br. of Carto., Office of Br. Chief, Digital Line Graphics Group
 John A. Kelmelis, Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect., to Cartographer, GS-11, same
 Gary W. McKeown, Supv. Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect., to Cartographer, GS-11, same
 Robert A. Peckman, Cartographer, GS-12, Br. of Photog., Photog. Oper. Sect., to same, GS-11, same

Jerry W. Wagner, Supv. Cartographer,
GS-12, Br. of Photog., Photog. Oper.
Sect., to Cartographer, GS-11, same

PAY ADJUSTMENT TO FULL-TIME

Gloria A. Bradshaw, Administrative Tech.,
GS-5, Office of Center Chief
Clifford D. Schafer, Carto Aid, GS-3,
Br. of P&P, NCIC-M, Data Acquisition
Team
Wilma J. Daniels, Data Transcriber, GS-4,
Br. of P&P, Comp. Oper. Unit
Gerald D. Wilderson, Carto Aid, GS-4, Br.
of Carto., Digital Line Graphics Group
Hylan L. Beydler, Clerk-Typist, GS-3, Br.
of Carto., Office of Br. Chief
Richard L. Walters, Carto Aid, GS-3, Br.
of Carto., Compilation Unit
Robert A. Newkirk, Jr., Carto Aid, GS-3,
Compilation Unit
Gregory M. Sawyer, Photographic Aid,
GS-3, Br. of Carto., Photoimagery Sect.
Ronda J. Booker, Carto Aid, Br. of Carto.
Sandra G. Bowling, Carto Tech, Br. of
Carto.

PAY ADJUSTMENT TO PART-TIME

Charles E. Hayes, Carto Tech, GS-9, Br.
of Carto., Carto. Sect. "B", Compila-
tion Unit
Gladys M. Conaway, Carto Tech, GS-5, Br.
of Photog., Photog. Oper. Sect.

CHANGE TO LOWER GRADE

Mabel E. Pretzer, Administrative Tech.,
GS-5, Office of Center Ch., to Carto
Aid (T), GS-4, Br. of P&P, NCIC-M,
User Services Team
Agnes C. Remington, Prog. Asst., GS-5,
Br. of P&P, Office of Br. Ch., Prog.
Control Sect., to Prog. Analyst
(Trainee), GS-5, same

RESTORATION TO RETAINED GRADE

Gloria A. Bradshaw, Carto Aid (Trainee),
GS-4, Br. of Photog., Photog. Oper.
Sect., to Administrative Tech., GS-5,
Office of Center Chief

USGS EARLY BIRDS BOWLING NEWS

by Marshall Creighton

The fourth quarter of the 1980-81 bowling season ended with another cliff hanger of a finish. Going into the last regular scheduled night, four teams had a chance at first place. Preparation H held a slim 1 point lead over the Gutter Groopers, with the Bozzoes and Rejects trailing by 2 and 3 points respectively. Each team had to win all 7 points in order to have a chance at first place. Each team member knew this was their last chance. The teams battled hard on that fateful Thursday night, but Preparation H emerged the victor once again. This ended the 1980-81 scheduled games with only the play-offs and jackpot night remaining. Three teams had now qualified for the finals; Preparation H, with 2 quarter wins, got a bye and would be in the finals; and the Rejects and the Okies, who would play each other in the semi-finals.

The semi-final game proved to be exciting as well with honors going to Cliff Schafer who rolled a 219 game that eventually won the Rejects the right to face Preparation H in the finals. The finals were held on April 9 along with the annual doubles competition. Twenty-six bowlers competed for cash awards in the doubles as Preparation H and the Rejects battled it out for first place overall. The first two games were split 2 apiece so it went down to the last game with Preparation H finally winning it all. Winners of the doubles were: Jack Turner and Pam Malam with a 1308; 2nd was Ron Boeding and Dwayne Sawyer with a 1236; and 3rd went to Cliff Schafer and Tony Keepes with a 1218. The season prize winners were:

High Average

Men:	D. Sawyer	169
Women:	C. Leake	136

High Series Scratch

Men:	D. Bolin	570
Women:	V. Creighton	484

High Game Scratch

Men:	P. Hensley	233
Women:	P. Malam	187

High Series Handicap

Men: K. Eissinger 691
Women: K. Flaherty 683

High Game Handicap

Men: B. Bauch 256
Women: P. Borgerding 248

Most Improved Average

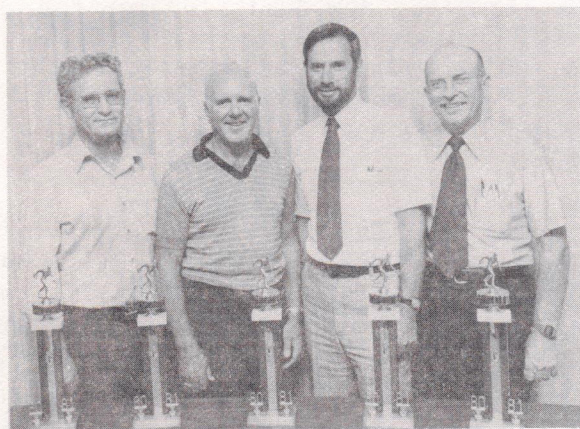
Men: R. Harris +9.5
Women: K. Flaherty +8.5

WIBC High Series Scratch

C. Leake 512

Sportsperson of the year

D. Bolin
P. Borgerding



Champions: Ron Boeding, Pat Hensley,
John Powell, and Duwayne Sawyer



Runners Up: Karl Eissinger, Cliff Schafer,
Pat Borgerding, Candy Letke, Garry Grimm,
and Charlie Croom

GOLF SEASON UNDERWAY

by Gary Raymond

The 1981 USGS golf season got underway on April 27, at the Oak Meadow Country Club. Bob Graber and his GORILLAS leaped out to an early lead in the team standings by grabbing all six points in their match with Canfields. Team member Teddy Bare rolled in a 30-foot birdie putt on the final hole to clinch the victory. It was reported that Ted out raced the ball to the cup.

Low team score for the night was a 70 carded by KIRKS JERKS. Low subteam score was a 32, turned in by Ed Sands, Dale Stevens, and Irene Hosfeld.

Following league play, a "Tee off the Season," gathering was held at Jerry Berry's house just off the 17th tee. Refreshments and buffet were served by the hosts.

The second night of the season (May 18th) had to be postponed as the monsoons hit the Rolla area. Play resumed on June 1st even though the golf course had received 2½ inches of rain in the preceeding 24 hours. The GORILLAS maintained their hold on first place by winning 5½ points. KIRKS JERKS and CORKS EAGLES each won all 6 points in their respective matches to remain in contention.

On June 12th, a medal play tournament will be held at the St. James Golf Club. There will be six flights and so far approximately 50 golfers have entered.

Standings:

1.	GORILLAS	11½
2.	KIRKS JERKS	11
3.	CORKS EAGLES	11
4.	GOLDEN BEARS	5
5.	CANFIELD	5
6.	LONG KNOCKERS	3½
7.	WALLIS	3½
8.	CROWELLS CROWS	3
9.	DIRTY DIVOTS	3
10.	SANDS	2½
11.	SAWYER	1
